



## BUILDING INSPECTION DIVISION

### Installation Guidelines for Electrical Generators

Permanent generators must be permitted and inspected by Missouri City Inspection Division. Applications must be submitted by a licensed and registered electrical contractor and must include:

- **A plot plan showing the generator's location, setbacks, pad construction details and elevation; please maintain a distance of not less than five feet from any point of the generator to any building opening and 60" to any structure \*<sup>1</sup>.**
- **The location of the generator's fuel source and the type of fuel\*<sup>2</sup> to be used. Include fuel riser diagram with length and pipe type and associated appurtenances.**
- **A one-line diagram inclusive of the type of conductors and wiring methods to be utilized and grounding and bonding notes/details.**
- **Itemized electrical loads to be served.**
- **Transfer switch specifications, (specially where installed as service equipment).**
- **Complete generator specifications.**
- **Generator pad specifications and construction details.**

These documents will be reviewed within 48 hours from the time of submittal. Partial submittals will not be accepted for review.

NOTE: Diesel fuel tanks to be approved by Fire Department 281 403-4309

#### **Application Permit Requirements**

A permit application for installing a generator is based on the KVA rating listed. Turndown fees are \$25.00 if the installation does not meet code guidelines when inspected and \$50.00 if a second inspection fails.

#### **Contact CenterPoint Energy before installation**

Secure approval from CenterPoint Energy power consultant representative prior to the purchase of any equipment. The installer must contact CenterPoint Energy or other applicable electrical utility company to arrange for disconnection and re-connection of the electrical service as needed.

The toll-free telephone number is 1-866-222-7100

#### **Reconnect and Underground Inspections**

After installation, contact the Missouri City Inspection Division for the required Reconnect and Underground Inspections. Underground conduits must be inspected in their entirety; **PLEASE NOTE that the Missouri City electrical inspector must approve the work before CenterPoint Energy re-establishes power to the premises.**

## **Transfer Switch**

Permanently installed equipment for the connection of a portable generator must comply with Section 702.6 of the 2005 National Electrical Code (NEC). The manual transfer equipment will require an interlock device suitable for the intended use. This device must be installed to prevent the inadvertent interconnection of the normal and the optional system supply. The connection device must be a UL Standard 231 Listed Power Outlet.

## **Guidelines for Permanent Generators with Manual Transfer Switches:**

Permanently installed generators with permanently installed manual transfer equipment must use a Listed Transfer Switch or Panel Board. The equipment must be installed so as to allow the user to select the connected loads upon manual transfer.

## **Guidelines for Permanent Generators with Automatic Transfer Equipment:**

Permanently installed generators with automatic transfer equipment must comply with the provisions of Section 702.5 of the 2005 National Electrical Code. The calculated load as determined by Article 220 of the 2002 NEC must not exceed the rating of the generator output. Please note that a "Demand Load" will not be accepted in lieu of the calculated load.

ALL load calculations must be included with the approved permit documents and must be available on site with the permit and approved plans at the time of the inspection. All transfer equipment must be listed. Automatic transfer equipment installed on the supply side of the method of disconnecting the service must be listed as suitable for use as service equipment.

## **Signage**

Permanent signs must be posted at all of the above-described installations that comply with Section 702.8 of the 2005 National Electrical Code. The required signs must indicate the type and location of the on-site optional standby power source, and must be permanently installed and located at the service disconnection point and at the meter enclosure.

All equipment must be installed according to the manufacturer's instructions.

## **Portable generators**

Generators that supply power to connected equipment through built-in receptacles mounted on the generator DO NOT REQUIRE PERMITS OR INSPECTIONS.

However, they must be placed well away from a home or any air intake to prevent the danger of carbon monoxide poisoning.

As with any of the equipment listed above, be sure to read and follow all safety precautions in your user's manual.

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**\*1** NFPA 37 Subsection 4.1.4 of reads as follows:

### **"4.1.4 Engines Located Outdoors".**

*Engines, and their weatherproof housings if provided, that are installed outdoors shall be located at least 1.5 m (5 ft) from openings in walls and at least 1.5 m (5 ft) from structures having combustible walls.*

*A minimum separation shall not be required where the following conditions exist:*

- (1) The adjacent wall of the structure has a fire resistance rating of at least 1 hour.*
- (2) The weatherproof enclosure is constructed of noncombustible materials and it has been demonstrated that a fire within the enclosure will not ignite combustible materials outside the enclosure."*

This guidelines will have to be followed unless manufacture's guidelines indicate otherwise.

**\*2 Gas lines, regulators and other related materials and equipment are to be installed by licensed plumbing contractors only. Gas permits shall be secured before any work is to begin.**